



van Klink, E. G. M., & Kampf, H. (2009). Implementing veterinary and animal welfare regulations in semi-natural pastoral landscapes in The Netherlands. In *Proceedings Symposium 2008. Internationale Fachtagung zu tierschutz- und veterinärmedizinischen Aspekten halboffener Weidelandschaften*

Early version, also known as pre-print

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Implementing veterinary and animal welfare regulations in semi-natural pastoral landscapes in The Netherlands

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Summary

The operations in nature reserve areas are monitored tightly by interest parties. Farmers organisations have been very critical particularly about the practices in large practically natural areas. The animal rights movement has been very critical also. Most of the criticism was directed to the Oostvaardersplassen. The farmers organisations were apprehensive about the differences between the various management types because of alleged legal inequality. The animal protection association was particularly critical on the fact that numbers of animals die each winter. The other track A area, the Veluwezoom, was less subject of criticism. Possibly this was caused by the fact that the animal population did not grow as fast in this region as in the Oostvaardersplassen, and there was also the possibility of extending the grazing area, which was much more difficult in the Oostvaardersplassen. The criticism already had resulted in management protocols being set up for the management of weak and dying animals. These protocols are implemented to this day in both track A areas. In 2005 the issue had become political; this necessitated the Minister of Agriculture, Nature and Food Quality to appoint an international committee to look into the problems and to give advice on further approaches. In June 2006 this committee delivered its report: Advice of the International Committee on the Management of large herbivores in the Oostvaardersplassen (ICMO). The core of the advice was, that the management as it was practiced was adequate, but that in the long run extension of the area would be necessary to make more varied biotopes available and to buffer the growth of the population. Public anxiety seems largely to have died down since.

Introduction.

Since the early 80-s grazing nature reserves with large herbivores other than deer and wild boar has become somewhat of a practice in The Netherlands. The most well-known example is the Oostvaardersplassen, which is one of the largest areas, but other areas include the Veluwezoom and a number of smaller scale areas. In Dutch nature policy three types of areas are distinguished: multifunctional management areas, which include areas that are basically managed as livestock farms, semi-natural management areas, and the near natural areas. The last category consists of large areas, of at least several thousands of hectares. A size of five thousand hectares or more is preferred. The Oostvaardersplassen, Zuid Kennemerland and Veluwezoom are representatives of this category. Figure 1. shows the location of these three areas in The Netherlands. In these areas nature is allowed to develop as much as possible without the interference of man. In them, the large herbivores are considered part of the ecosystem rather than assistants in preventing forest development or mowing machines.

In particular the veterinary and animal welfare legislation sometimes does not fit well with the management of the animals in the nature areas. Van Klink and Kampf (2004) analysed the discrepancy and illustrated how this was dealt with in the Dutch situation. One of the conclusions was, that the legislation was geared towards agricultural use of animals and that the practice of having large herbivores, that were subject to the legislation in principle, in nature areas, could sometimes not fulfil the obligations of the legislation. For the larger part, workable solutions for all three types of nature management have been found (Van Klink and Kampf, 2004).

In this contribution the current situation regarding the most important veterinary legislation will be recapped briefly. The most important standing issue over the last few years however has been the welfare of the animals in the near natural areas. This will therefore be given some more attention.

Figure 1. The location of three “near natural” nature reserve areas in The Netherlands: Kennemerland (left), Oostvaardersplassen (middle) and Veluwezoom (right).



Veterinary and welfare legislation in the semi-natural grazing areas.

In an earlier presentation (Van Klink and Kampf, 2004) some dilemma's were discussed facing the use of large herbivores in nature areas. The farmer community was very critical because of perceived legal inequality, and the animal protection organisation was critical because of the perceived low level of responsibility and care for the animals. As a result, the operation of the near natural areas was followed very closely by pressure groups as well as media and politics. All areas have cattle (Heck cattle in the Oostvaardersplassen, Scottish Highland cattle in de Veluwezoom and the Zuid Kennemerland), Oostvaardersplassen and Veluwezoom also have red deer. The Oostvaardersplassen has Koniks, whereas the Veluwezoom has wild boar. In all areas some roe deer are also living. In these three areas the Heck cattle, the Scottish Highland cattle and the Koniks are considered wild animals.

Since the Oostvaardersplassen are more or less the showcase of this type of nature management in The Netherlands, most attention was given to this area. To solve the fact that the animals are not identified and registered according to the requirements of the European legislation (EU, 1992, 1997a, 1997b, 2000), it was decided that the animals (more precisely the cattle) should stay out of the livestock trade entirely. This means that animals cannot be “harvested” or taken to other nature areas. The rendering laws are fully applicable in these areas, meaning that carcasses of cattle and horses must be removed and taken to the rendering plant. Some leeway has been given here for carcasses that are not found quickly enough. Paradoxically, the red deer in the area are not subject to the rendering act. Carcasses of red deer are therefore frequently left in the field to serve as food for carrion beetles, ravens, buzzards, foxes and (in the case of the Oostvaardersplassen) white tailed eagle.

Animal welfare legislation has not received very much attention, apart from specific groups of livestock and specified situations, from the European Union. The most important legislation on animal welfare in The Netherlands is therefore the Animal Health and Welfare Act (Gezondheids- en Welzijnswet voor Dieren). The most important provision in this law, and at the same time the most debated one, at least in relation to animals in the wild, is the statement that anyone is obliged to provide animals with “the necessary care”, and to prevent “unnecessary suffering”. Both concepts have not been defined more precisely in the law. In many ways, they are relative concepts. “Necessary care”, as well as “unnecessary suffering” are relative to the situation in which the animals are living. Necessary care for a dairy cow suffering from lameness is considerably different from necessary care for a Heck cow with

lameness. Where the first will be helped by hoof trimming and a foot bath, the second will panic and get overstressed even if one would only attempt to approach it to carry out foot care.

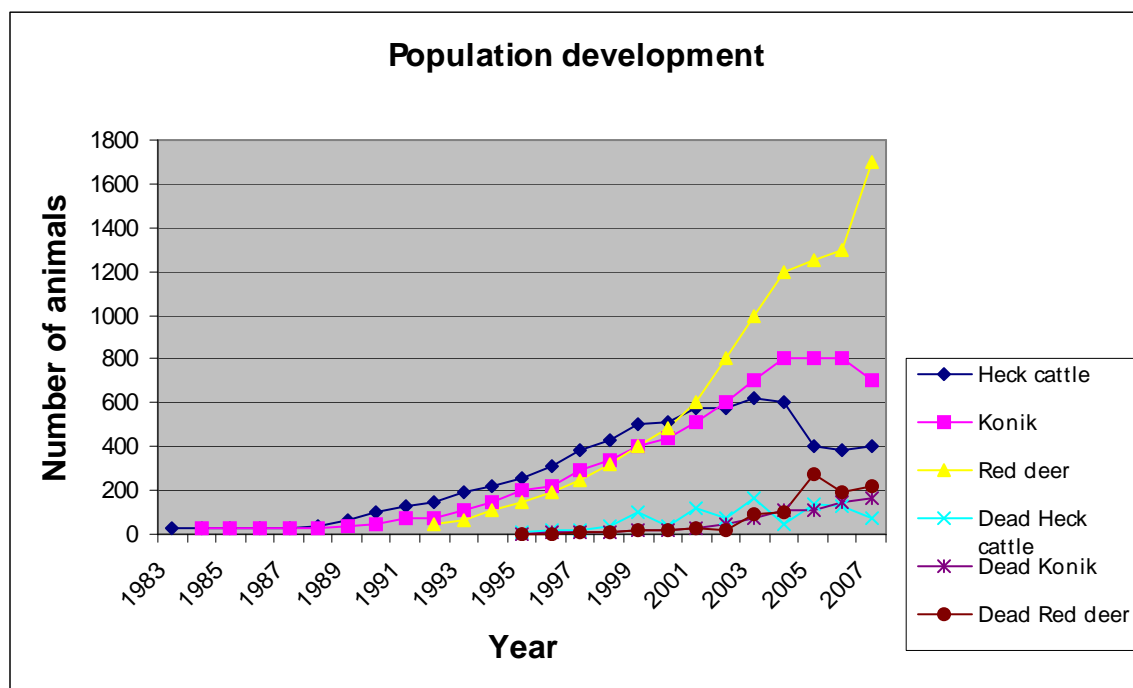
The event that really sparked a lot of attention several years ago, was the death of a relatively large number of Heck cattle at the end of winter. It is a well-known fact in the Oostvaardersplassen that the feed is running scarce towards the end of winter. Some animals do not cope with this well enough. Since the policy for the area is, that man should interfere as little as possible, and since the animals are in a de-domestication process (Keulartz et al., 1998, Koene and Gremmen, 2002), coping with food scarcity is something the animals need to get used to.

The majority of animals dying at that particular incident were older bulls. It was found out in the Oostvaardersplassen that old bulls tend to retire from the rest of the herd, group together with two or three, and mostly stay in the same area all year long. Even in winter, when younger animals migrate in search of food, the old bulls do not seem to move. This obviously puts them in a vulnerable position.

Larger than average numbers of animals dying at the end of winter are a normal feature nowadays. Apart from older bulls, yearlings are notoriously vulnerable, in horses, cattle and red deer. In horses, newborn foals, especially of young inexperienced mothers, seem to have a higher risk of dying during the foaling season. The main cause may be, that the mares come in heat around 7 days after the birth of the foal, and are persecuted fiercely by stallions. If the mare has little experience, the foal may get separated from the mother and die of starvation.

The incident, and the realisation that animals did die sometimes in considerable numbers, provoked considerable controversy in two ways: firstly, it was thought that action should be taken to prevent starvation, by supplementing the animals with feed, and secondly, it was generally felt that the Oostvaardersplassen were becoming overpopulated and that something had to be done about that: "Necessary care" and "unnecessary suffering". Figure 2. shows the development of the population of the animals and the number of animals that have died through the years from 1983 till 2007.

Figure 2. Development of the populations of Heck cattle, Koniks and Red Deer in the Oostvaardersplassen (source: Staatsbosbeheer).



The animal welfare discussion carried forward.

While on the one side the animal protection organisations, supported by much of the livestock sector, claimed that not enough care was given to the animals, on the other side the nature conservation organisations claimed taking severe intervening measures were undesirable. Both sides were backed

by politicians. The Minister of Agriculture, Nature and Food Quality was more or less caught in the middle, being responsible both for animal welfare and for nature.

The animal protection organisations wanted the animals to be fed during winter. The managers of the nature area did not see the benefit, and did see a lot of disadvantages. The feed would not be eaten by the animals that needed it most, but mostly by the able-bodied animals that would have survived the winter anyway. At the same time the animals would come out of winter with a relatively good body condition, as a result of which the seasonality in calving, which had developed on the basis of the food availability, could be lost. This, together with the loss of natural temperance in fertility due to periodic food shortage, would make the population growth much bigger, thus aggravating the problem.

Ethical guidelines.

It was clear that a deadlock was threatening. To find a way out of this, ethical guidelines were drawn up (Tramper, 1999) commissioned by Staatsbosbeheer, one of the larger nature conservation organisations in The Netherlands. Staatsbosbeheer (State Forest Service) is a Government commissioned organisation taking care of 246,000 ha of nature areas. These ethical guidelines give indications for the managers of nature areas how to deal with animal welfare dilemma's in their grounds. The managers of Staatsbosbeheer are obliged to conduct their duties along these lines. The Ethical Guidelines are valid for all vertebrates, although the degree to which the manager can be held accountable, may differ depending on the species. In general, the ethical guidelines identify the following principles:

- The moral position of animals in society is changing. The intrinsic value of animals must be respected. This also holds for animals living in the wild, but it does not mean we have to treat them the same as our domestic animals.
- The obligation to provide care for animals as stated in the Animal Health and Welfare Act does apply to all animals, not just to the domesticated ones. Nevertheless, one cannot be expected to do something about welfare problems that cannot be solved. Although the guidelines are valid for all vertebrates, the likes of mice and frogs lead a life that is much too secluded to be able to have any influence.
- An important principle in the societal debate on ethical issues is, that we should not unnecessarily harm health and wellbeing of animals and should prevent or repair any harm done.
- Another principle is, that the integrity of the animal should be respected. We should, if it can be prevented, not interfere with the characteristics of the animal. This is related to exterior, behaviour and self-sufficiency. These two principles stem from the animal-ethical approach.
- Eco-ethical arguments do not look at the interests of the individual animal only, but at the interests of the population of the animals in the ecosystem. It may be necessary to do or do not undertake certain actions if it can harm the development or maintenance of a healthy population. This does not mean that the interests of the individual animal is disregarded; the interest of the species in its ecosystem is only considered more important.
- Both sets of arguments, animal-ethical and eco-ethical, can be approached as a strong combination rather than as a contradiction. If interfering to help or to prevent suffering of an individual animal does not harm the interests of the population, there is no reason not to do it. Alternatively, those who are advocates of the animal-ethical approach, will also want the population to be healthy and thriving.
- Reconciling both approaches can be done by taking the aspect of integrity of the animal, and more particularly the principles of self-sufficiency and the ability to carry out natural behaviour into account.
- The result is, that for free living animals, the ability to live independently should be respected and interference should be limited to the minimum. A second result is, that prevention of suffering should be given a place in the process. These two should be weighed against each other at all times. This will often provoke a dilemma. It may be helpful to use the following criteria for cases where it would be acceptable to interfere:
 1. When harm has been done to the environment of the animal (through destruction or pollution) or the capability of the animal to be self-sufficient is restricted (through barriers and obstructions).
 2. If it is found that the trust in the capability of the animal to fend for itself is unjustified.
 3. If by intervention serious suffering can be prevented. In that case the obligation to prevent suffering has a higher weight than the obligation to respect the self-reliance of the animal.

The above mentioned principles led to the following behavioural guidelines for the management of nature areas:

1. If the manager is confronted with a sick or wounded animal that is suffering seriously or desperately, he must intervene by killing the animal painlessly.
2. If the manager is confronted with a sick or wounded animal or his attention is drawn to a sick or wounded animal, he will only intervene if it may be assumed that the advantages of intervening balance the disadvantages of intervening favourably (for the animal).
3. The manager will pay extra attention to the wellbeing of individual animals in cases where problems with welfare can be expected, such as (re)introduction of a species or extreme climatic circumstances.
4. The size of the population of the various species is managed in such a way, that the carrying capacity of the terrain is not overburdened. If the carrying capacity does become stressed, preferably natural mechanisms are preferred to regulate the population size. If this is not possible the manager should actively reduce the population, preferably through likening it as much as possible to natural selection ("looking with the eyes of a wolf").
5. In principle the animals are not supplement fed, except in two situations: if essential minerals or food substances are lacking and if a so called crash is threatening.
6. If legally possible, carcasses should be left in the field.

Guideline Large Grazers.

Abovementioned ethical guidelines were commissioned by Staatsbosbeheer. Natuurmonumenten, the other large nature conservation organisation in The Netherlands, and owner of Veluwezoom and Zuid Kennemerland, made its own guideline with the same intent. However, political pressure built up to demand that the Minister (or rather the State Secretary) of Agriculture, Nature Management and Fisheries, as the post was called at the time, took responsibility also. Specifically the Second Chamber of the Dutch Parliament had the view that the State Secretary, Mrs. Faber, held responsibility for the conduct of the nature conservation organisation under her care and was accountable for the animal welfare in the areas. Therefore the State Secretary sent the Guideline Large Grazers to the Second Chamber in January 2000 (State Secretary of Agriculture, Nature Management and Fisheries, 2000). The Guideline approaches the matter from the judicial point of view: the Animal Health and Welfare Act and the Rendering Act. Animals that fall under the Flora- and Fauna Act (which includes the former Hunting Act) are excluded. This is remarkable, since it means that the red deer of the Oostvaardersplassen are excluded as well, contrary to the Ethical Guidelines, that are valid for all vertebrates.

The following code of conduct, not much different from the Ethical Guidelines, is described in the Guideline Large Grazers:

- Every animal in a nature area will be cared for. The shape this care is taking, depends on the type or area, the circumstances under which the animals live and the level of de-domestication. For the purpose of the implementation of this rule the animals in the large near natural areas are considered non-kept animals. For other areas it is still to be determined whether animals should be considered non-kept.
- In case of threats of overstressing the carrying capacity in large nature areas, population regulation is required. The manager of the area should be the first one to determine threatening overstressing of the carrying capacity, if needed with the help of outside expertise.
- In the management plan for the area, the carrying capacity must be indicated, the level of self-regulatory capacity and the measures to be taken to prevent overstressing the carrying capacity.
- The manager is expected to check at least once a year whether measures are necessary.
- In other areas the required number of animals must be determined beforehand.
- The manager decides when and how measures are taken.
- Only animals that have been identified and registered as required by (European) law, can be used for consumption if they are taken to slaughter alive.
- Only animals that have been identified and registered as required by (European) law, can be transported to other nature areas within or outside The Netherlands.
- The manager must take measures when an animal is sick or wounded and suffers seriously or desperately. In case of doubt a veterinarian must be consulted.
- Killing animals must be done as painless as possible and with as little stress as possible.
- Wounded and sick animals in large nature areas will not be nursed if it can be expected that they will recover on their own. If not, the animal should be killed.
- In the other nature areas the animal must receive proper care, unless effective treatment cannot be given or the animal suffers desperately or seriously.

- In large areas the animals will not be supplemented with feed, with two exceptions: in case of essential mineral shortages or in case of a threatening population crash.
- In the other areas the animals are fed and cared for beforehand.

The Guideline Large Grazers also sets some standards in case of outbreaks of animal disease. The legislation on animal disease must be applied for the large areas, and the approach for these areas must be included in the contingency plans. If possible, tailor-made measures will be designed. Also, the health status of the animals must be monitored through an annual sample. Finally, the Guideline also states rules applying to carcasses of dead animals. It says that carcasses of dead animals are, if possible, removed from the area. In practice, this is not done with carcasses of red deer.

The International Committee on the Management of large herbivores in the Oostvaardersplassen (ICMO).

The living conditions of the animals in the Oostvaardersplassen continued to be in the focus of attention. Although the application of the Guideline as well as the Ethical Guidelines seemed to work well, the discussion continued. Quite a number of animals had to be shot towards the end of winter to prevent them from starving to death. In some years the numbers could be considerable. This was for example the case in the winter of 2004 – 2005. From the side of the animal protection organisation the food situation in the area and the correctness of the use of the Guideline was contested over and over again. In 2005 the organisation went to court to pressurise Staatsbosbeheer to supplement the animals with feed. Also, the political lobby increased. Two advisory councils for the Minister, the Council for Animal Affairs (Raad voor Dierenaangelegenheden, 2005) and the Council for Rural Areas (Raad voor het Landelijk Gebied, 2005), produced advisory reports which were conflicting, the one opposing the current practice, saying that overpopulation was eminent, the other supporting the current practice.

All this led to the Minister of Agriculture, Nature and Food Quality wanting to resolve the matter more permanently. In the course of 2005 he appointed an international committee, the International Committee on the Management of large herbivores in the Oostvaardersplassen (ICMO). It was envisaged, that the ICMO would give the “final” assessment, and that all parties involved, including politics, would accept the outcome of the advice.

The Committee consisted of 9 internationally renowned experts supported by a 2 headed secretariat. It was asked to answer three questions:

1. Is it possible to maintain a resilient, self sustaining ecosystem including large herbivores in the Oostvaardersplassen (OVP) nature reserve, which is acceptable in terms of animal welfare?
2. If so, what conditions would have to be in place?
3. What impact would an ecological corridor between the Oostvaardersplassen and the Veluwe nature reserves have on the Oostvaardersplassen ecosystem and, in particular, on the populations of Konik horses, Heck cattle and Red deer?

In order to answer the questions, ICMO consulted a number of individuals and relevant organisations within The Netherlands.

The ICMO distinguished a number of guiding principles:

- The main objective of management in the OVP is the maintenance of suitable habitats for a diversity of wintering and breeding populations of birds of international importance, using a grazing system involving deer, cattle and horses in which intervention is minimal.
- ICMO supports the principle that populations of herbivores in the OVP should be treated as wild animals as far as possible, and that human intervention should be minimized.
- There are several different value systems for animal welfare in The Netherlands. The management of large herbivores must meet animal welfare criteria acceptable to the Dutch people. Dutch legislation and values, rather than the personal views of the committee members were chosen as starting points.
- There is a public preference for avoiding OVP management policies that involve the routine culling of substantial numbers of healthy animals.
- The present management practice does not realistically simulate predation, and should not be referred to as a predator model.

The ICMO considered four types of regulation of the population:

- No intervention: a minimum management strategy where herbivore populations are allowed to self regulate and animals are neither killed nor removed whatever their body condition.
- Proactive culling or removal with the aim of minimizing starvation and winter mortality, either spread throughout the year or focused in particular periods, attempting to mimic natural processes by simulating the impact of natural predation or simulating a pattern of episodic mortality, or by maintaining herbivore populations at a fixed level by removal of annual recruitment, or by removing a variable number of animals each year in response to estimates of body condition and range condition (or both) at the beginning of winter.
- Reactive culling: individuals that are below condition thresholds are culled on a daily basis to minimize suffering.
- Contraception: controlling the reproductive rate of the population by artificial means.

The Committee drew up a set of recommendations for the management of the Oostvaardersplassen. They were:

- A detailed statement of management objectives must be developed including an outline of the specific objectives of management for important bird populations and their habitats.
- Attempts to control population numbers through artificial control of reproductive rate are not supported.
- In terms of population management, a reactive policy should be adopted. Through this, the need to minimize unnecessary suffering of animals with injury, disease or bad body condition is best served. It is recommended that 90 % of the required cull is taking place during winter months (February – mid April). This is a bit earlier than the current practice.
- If having to cull animals along this line eventually leads to a reduced number, or even the loss of all cattle from the OVP system, this should be accepted as being a natural outcome of resource competition. Cattle are deemed to be the most vulnerable for food competition.
- Woody vegetation in permanent enclosures on the periphery of the reserve is needed to provide wind breaks for the animals.
- It is recommended that an ecological corridor is accomplished to the Horsterwold, a nature reserve around 20 kilometres away, as soon as possible. Through this the area is extended to more than 15000 hectares.
- Artificial supplementary feeding is not recommended.
- The system of herbivore management should be evaluated annually. Detailed records should be kept of the results.
- Environmental monitoring should be improved, recording numbers, distribution and breeding success of important bird populations, the structure and dynamics of plant communities, and the distribution, breeding success and condition of the mammalian herbivores.
- The management system must be reviewed after 5 years.
- Communication with the public needs to be improved. a communication expert should be assigned to plan and execute this.

Finally, the three questions put forward by the Minister were answered:

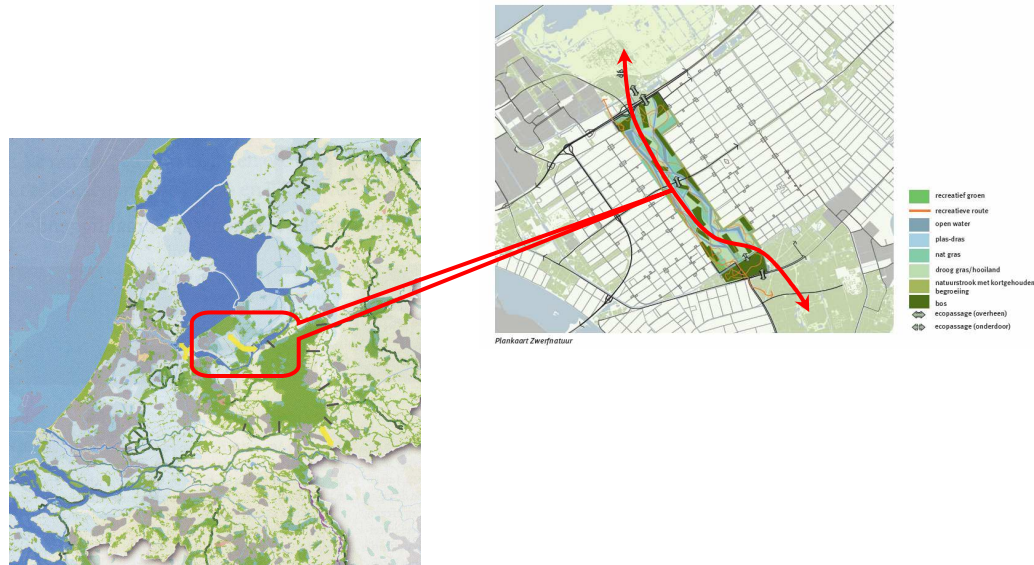
- On the question whether it is possible to maintain a resilient, self sustaining ecosystem including large herbivores in the Oostvaardersplassen, the Committee answered, that it is. The populations will be regulated by the carrying capacity. Mortality observed in OVP in 2005 was not exceptional if compared with isolated island areas with comparable circumstances.
- On the question what would be needed to establish such an area, the answer was, that there either needs to be proactive cull aiming to reduce autumn numbers, or cull of individual animals falling below an established condition threshold in late winter.
- On the question on the impact of an ecological corridor, the Committee answered, that it will have benefits for all three herbivore species in the OVP. It will increase the diversity of habitat, which benefits the stability of the system. It would be the first step in the establishment of a corridor linking OVP to a much larger area in the centre of the country. The link should be accomplished as soon as possible.

The ICMO report was presented to the Minister in a meeting in June 2006. several organisations that had been involved in the matter and in earlier advice and reports were present. Most of the organisations, including some politicians, were satisfied to moderately satisfied with the recommendations. Figure 3. shows the location of the proposed corridor between the Oostvaardersplassen and the Horsterwold.

Discussion.

Large herbivores in nature reserves have sparked controversy for quite a long time. The Oostvaardersplassen area, where the first Heck cattle were introduced in the early 80-s, is somewhat of a pioneer area for the use of large herbivores as part of the ecosystem and in a semi-natural environment. Originally, the concept was loosely based on the theories about forest formation of Vera (1997). Attention was drawn to the area at the time of the start of the new identification and registration for cattle (Van Klink and Kampf, 2004). While veterinary legislation was used as an important argument by opposing parties, welfare became an increasing issue over the years, especially when due to the growing population of cattle, deer and horses, the resources became strained at the end of winter.

Figure 3. The location of a corridor between the Oostvaardersplassen and the Horsterwold.



While the welfare of the animals in the nature areas can be considered a matter for the managers of these areas, lobby and politics have clearly made it a political problem in The Netherlands. Staatsbosbeheer, the managing organisation for the Oostvaardersplassen, is a State owned organisation and therefore the politically responsible Minister was required to be involved.

The Veterinary Support Group for Nature, set up in the early 90-s (Van Klink and Kampf, 2004), worked as a platform in which relevant issues related to animal health and animal welfare could be discussed. All relevant organisations were member of the platform. It has worked very well for a considerable period. The group played a role in setting up both the Ethical Guidelines and the Guideline Large Grazers. Nevertheless, it did and could not prevent that the issues were taken to the political arena.

Both sets of guidelines worked for the practical application of the management in the field. The ICMO report gave a transparent assessment of the practices in relation to societal demand. In the recommendations several aspects of both sets of guidelines can be recognised. The nature conservation organisations managing large scale nature reserves were therefore quite satisfied with the result, even though the committee stated that the culling practice used in the Oostvaardersplassen was not really what it claimed to be: looking through the predators eyes. The committee recommended that the managers would kill animals a few weeks earlier, before they are so weak that they are recumbent. The management of the area can live with that provision easily, while the Council for Animal Affairs, who were in favour of population control, was also quite satisfied. The recommendation that the area of the Oostvaardersplassen should be extended as soon as possible in order to increase both habitat diversity and living space, is welcomed by the animal protection organisation because it expands the living area and reduces danger of starvation, and by Staatsbosbeheer because it is something they have wanted already for a long time. This was also already part of the Dutch nature

policy plan and accepted by the province and local authorities. Land acquisition has in the meantime started and the process should be completed in a few years.

Does this mean that this issue is out of the woods? For the moment it does seem that the sets of guidelines and the ICMO report have contributed greatly to a broader acceptance of the practices in the large, semi-natural areas. The Minister wanted the advice by ICMO to be the final advice and had arranged beforehand that all parties would accept the result. This seems to have worked. The animal protection organisation has accepted the results; some of the politicians were more reserved, but have not brought up the issue since.

However, managing nature areas of this kind is an effort that is carried out in the open, for all society to see. The managing organisations will have to be fully transparent, but will be walking the tightrope at the same time. Knowing that what is being done is being done responsibly, is not enough; it must be possible to explain the actions to society and the public.

At the same time, the organisations involved, especially the ones that were opposed to the practices, will monitor the proceedings in the area. They will restart the discussions if what they see does not appear to them as being in line with the recommendations. This means, for example, that the first steps are being made for the establishment of the proposed corridor. This provokes its own set of problems, mainly because it involves buying out and transferring farms. Some aspects will even be out of anyone's control: if there is a very severe or wet winter, or a cold, wet spring, through which the regrowth of grass starts later than half April, instead of half March, resulting in large scale mortality, a new round of discussion could easily be sparked.

As for leaving carcasses in the field, a new round of discussion at the European level is starting. Part of the discussion will be whether carcasses of cattle and horses that are living as wild animals should continue to fall under the rendering provisions.

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